Addendum to Comments Received for RTAC 8/4/09

8/4/09

The following document was provided by the Health Network for Clean Air, a group of fifteen health and medical organizations, for consideration by the Regional Targets Advisory Committee.

August 3, 2009

Chairman Mike McKeever and Members
Regional Targets Advisory Committee
California Air Resources Board
1001 I Street
Sacramento, CA 95812

Re: Public Health Benefits of Smart Growth

Dear Chairman McKeever and Regional Targets Advisory Committee members:

As organizations participating in the Health Network for Clean Air, we are writing to seek your help in ensuring that California adopts ambitious regional greenhouse gas reduction targets that will lead to healthier communities and reduced rates of chronic illness and premature death. We urge the Regional Targets Advisory Committee (RTAC) to consider the public health benefits of setting ambitious regional targets that reduce driving and to convey these important co-benefits of smart growth within the committee's recommendations to the California Air Resources Board.

The Health Network for Clean Air has been promoting strong state policies to reduce global warming pollution for the last six years, and we have focused lately on the importance of improved land use and transportation planning to reduce driving and achieve multiple public health benefits. As health and medical organizations, we are extremely concerned about the crisis of global warming and the reality that global warming will lead to serious public health problems and increased rates of illness, hospitalizations and premature death. Implementing smart growth principles to reduce vehicle use is a key strategy in local efforts to address global warming pollution and related public health concerns.

Our organizations believe that ambitious regional greenhouse gas reduction targets are a key component of California's fight against global warming, air pollution and chronic illness. By providing a framework for ambitious targets that promote local strategies for smart growth, the RTAC has the opportunity to improve public health by reducing dependency on motor vehicles. Motor vehicles are the largest source of greenhouse gas and criteria air pollutant emissions in California and contribute to a wide range of adverse social and public health outcomes, including premature death. As California's population grows, increased driving will overwhelm California's ongoing efforts to achieve emission reductions through cleaner fuel and vehicle standards.[1] The AB32 Scoping Plan noted that vehicle miles traveled (VMT) in California increased by 35 percent since 1990, could increase another 20 percent by 2020 and may more than double by 2040.[2]

[1] California Energy Commission. 2007 Staff Report: The Role of Land Use in Meeting California's Energy and Climate Change Goals, p.9.
[2] California Air Resources Board. Climate Change Proposed Scoping Plan Appendices, Vol. I, Appendix C, Sector Overview and Emission Reduction Strategies: Transportation Vehicle Use, p. C-57.

Research into community designs that feature more compact, mixed-use development, and that support active transportation modes such as walking, bicycling and transit demonstrates the many public health benefits of getting people out of their cars (see attached resource list). In addition to reducing air pollution and its harmful effects on cardiovascular and respiratory health, such communities can encourage both children and adults to incorporate physical activity into everyday activities. Increased physical activity can reduce a number of chronic health risks such as obesity, diabetes, heart disease, cancer and depression. Social equity issues can be addressed by improving local access and transportation to nutritious foods and health care services that are often out of reach in low income communities and communities of color. Improving options for biking and walking can also help to reduce injuries as research has found motorists are less likely to strike a pedestrian or bicyclist as more people choose walking or biking.

We recommend the following priorities to the RTAC to reduce greenhouse gases and promote healthy patterns of activity and reduced driving:

- Make the development of healthier communities a key goal in the RTAC's process for setting regional targets. The target setting process should provide a vision for what can be accomplished in terms of healthier, more active communities, and demonstrate pathways to achieve these goals.
- Challenge each region to substantially depart from a business as usual approach to planning. Each region and sub-region can reduce greenhouse gas emissions, regardless of projected growth, current infrastructure and population.
- Increase the total statewide greenhouse gas reduction beyond the AB32 Scoping Plan's projection of a 5 Million Metric Ton (MMT) reduction from the land use and transportation sector. The Scoping Plan target did not account for all possible greenhouse gas reductions that could be achieved from improved land use and transportation planning at the local and regional level.
- Promote a range of policy options and reforms that state and local agencies can implement to reduce driving. Such policy recommendations could include congestion and parking pricing, increased walking and bicycling facilities, increased transit funding and others to capture the range of all possible reductions.
- Promote the development and use of planning models that can accurately estimate the potential global warming and public health impacts of various land use scenarios. Cutting-edge work in King County, Washington to incorporate public health, air quality and climate change factors into existing parcel-specific models[3] could serve as an important tool for planning more sustainable, livable communities.
- Require interim measures of progress and periodic reviews to ensure that targets are neither too difficult nor easy to achieve. Periodic reviews could also allow for comparisons between expected projections and actual reductions to verify accurate planning projections.

The Health Network for Clean Air believes that including these priorities within the RTAC's recommendations would help to establish strong regional goals to curb greenhouse gas emissions while promoting healthier, more active communities with reduced rates of chronic disease and premature death. We thank you for your attention to public health and look forward to working with you on this important process.

[3] King County, Washington HealthScape: "I-PLACE3S Health & Climate Enhancements and Their Application in King County" June 2009. http://your.kingcounty.gov/kcdot/planning/ortp/HealthScape/I-PLACE3S-FINALREPORT%2006-01-09.pdf

Sincerely,

Bonnie Holmes-Gen, Senior Policy Director
American Lung Association in California

Kris Calvin, Chief Executive Officer
American Academy of Pediatrics, California District

Eva K. Lean, MD, President-Elect
American Cancer Society, California Division, Inc.

Susan Hogeland, CAE, Executive Vice President
California Academy of Family Physicians

Asha Devereaux, MD, MPH, President
California Thoracic Society

Sandi Palumbo, Executive Director
Kern County Medical Society

Erin Huffer, MPH, Project Manager
Long Beach Alliance for Children with Asthma

Robert Gould, MD, President
Physicians for Social Responsibility, San Francisco Bay Area Chapter

Marisa E. Rimland, MPP
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Robin Salsburg, Senior Staff Attorney
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Regional Asthma Management and Prevention
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Steve Heilig, MPH, Director, Public Health & Education
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Shan Magnuson, Director
Sonoma County Asthma Coalition

Rita Scardaci, MPH, Director
Sonoma County Department of Health Services

Sonal R. Patel, M.D.
Pediatric/Adult Allergy & Immunology
White Memorial Pediatric Medical Group

Attachment

Public Health and Land Use Planning

Sustainable, mixed use communities designed around mass transit, walking and cycling have been shown to reduce greenhouse gases, air pollution and a range of adverse health outcomes. Setting ambitious regional targets to reduce greenhouse gases through smart growth and land use planning will help achieve the following public health benefits:

Improved Air Quality: Reducing vehicle travel through more compact development and improved options for biking and walking can reduce exposure to air pollutants such as ozone, particulate matter and toxic air contaminants. The American Lung Association's 2009 "State of the Air" report found that six of the ten most ozone-polluted cities in the United States are in California, as are three of the four cities most polluted by particulates.[i]

- According to the California Air Resources Board, exposure to unhealthy levels of ozone and particulate matter, both primarily produced through vehicle emissions in California, annually contributes to:
  - 280,000 asthma attacks
  - 22,000 cases of chronic bronchitis
  - 9,400 hospitalizations for cardiovascular and respiratory illnesses
  - 19,000 premature deaths
  - millions of lost school and work days.[ii]
- The Southern California Children's Health Study, a long-term investigation into air pollution and children's health has issued over 100 publications on the health effects of childhood exposure to ozone and particulates, including:
  - a 2008 study that found a 30 percent increased risk for new asthma cases in children living in communities with higher levels of traffic-related air pollution[iii]
  - a 2004 study that reported significant and permanent reductions in lung function and growth by the age of 18 due to long-term exposure to current levels of particulate matter ($PM_{2.5}$) and other traffic-related pollutants[iv]
  - a 2002 study that linked asthma onset to exposure to elevated ozone levels in exercising children[v]

Increased physical activity to reduce obesity and related illnesses: Safe and inviting options for active transportation including sidewalks, bike lanes, parks, trails, and local, reliable transit can encourage the integration of physical activity into everyday activities within a community:

- A 2006 study published in the *Journal of the American Planning Association* [vi] found a five percent increase in neighborhood walkability to be associated with:
  - 32% increase in time spent in physically active travel
  - almost a one-quarter point lower body mass index
  - 6.5% fewer VMT per capita
  - 5.6% percent fewer grams of oxides of nitrogen (NO_x) emitted per capita
  - 5.5% fewer grams of volatile organic compounds (VOC) emitted per capita
- A 2000 Centers for Disease Control literature review noted that regular participation in physical activity may reduce depression, anxiety and other mental health issues.[vii]

Improved access to nutritious foods and health care services: Communities that provide more equitable access to nutritious foods and health care services can help to reduce the prevalence of chronic illnesses:

- A 2008 study by UCLA's Center for Health Policy Research linked higher obesity and diabetes rates in low-income communities and communities of color to higher prevalence of fast food and convenience stores and a lack of neighborhood access to nutritious food options.[viii]
- A 2002 study of 15 low-income communities in the Bay Area found that two-thirds of residents lacked convenient access to health care services as demonstrated by not being able to get to a hospital within 30 minutes using transit or walking a half mile.[ix]

Reduced injuries: Paths dedicated for walking and cycling are critical to protecting pedestrians and bicyclists from motor vehicle accidents and creating a sense of safety that will encourage more individuals to utilize these transportation options.

- Research published in 2003 in the journal *Injury Prevention* found that there is "safety in numbers": motorists are less likely to strike a pedestrian or bicyclist the more people are walking or biking.[x]

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[i] American Lung Association State of the Air 2009. http://www.stateoftheair.org

[ii] California Air Resources Board. Quantified Health Impacts of Air Pollution Exposure. April 2009. http://www.arb.ca.gov/research/health/qhe/qhe.htm

[iii] Jerrett, et al. "Traffic-Related Air Pollution and Asthma Onset in Children: A Prospective Cohort Study with Individual Exposure Measurement". Environmental Health Perspectives 116:1433-1438. 2008.

[iv] Gauderman, et al. "The Effect of Air Pollution on Lung Development from 10 to 18 Years of Age" New England Journal of Medicine 351:1057-1067. 2004.

[v] McConnell R., et al., "Asthma in exercising children exposed to ozone: a cohort study". Lancet 359:386-9. 2002

[vi] Frank, L, et al. "Many Pathways from Land Use to Health." *Journal of the American Planning Association*. Vol. 72, No. 1. Winter 2006.

[vii] Frank, L. and Engelke, P. "How Land Use and Transportation Systems Impact Public Health: A Literature Review of the Relationship Between Physical Activity and Built Form. Active Community Environments Initiative Working Paper #1". December 2000. http://www.cdc.gov/nccdphp/dnpa/pdf/aces-workingpaper1.pdf

[viii] California Center for Public Health Advocacy, PolicyLink, & UCLA Center for Health Policy Research. "Designed for Disease: The Link Between Local Food Environments and Obesity and Diabetes." April 2008. http://www.healthpolicy.ucla.edu/pubs/publication.asp?pubID=250

[ix] The Center for Third World Organizing, People United for a Better Oakland and the Transportation and Land Use Coalition (Transform). "Roadblocks to Health: Transportation Barriers to Healthy Communities." 2002. http://transformca.org/resource/roadblocks-health

[x] Jacobsen, P. "Safety in Numbers: More Walkers and Bicyclists, Safer Walking and Bicycling." Injury Prevention. 9.3 (2003):205-209.

COMMENT LOG DISPLAY

BELOW IS THE COMMENT YOU SELECTED TO DISPLAY.
COMMENT 11 FOR COMMENTS IN GENERAL ON ARB IMPLEMENTATION OF SB 375 (SB375-GENERAL-WS) - 1ST WORKSHOP.

First Name: Carter
Last Name: Mau
Email Address: lkimura@arb.ca.gov
Phone Number:
Affiliation: Bay Area Rapid Transit (BART)

Subject: Comments on Performance Indicators
Comment:

See attached comment letter received by ARB staff via email 7/28/09 regarding performance indicators as discussed in the 'ARB Staff Discussion Draft: A Method for Setting Performance-based Regional Greenhouse Gas Emission Reduction Targets': http://www.arb.ca.gov/cc/sb375/rtac/meetings/070709/draftframework.pdf

Attachment: www.arb.ca.gov/lists/sb375-general-ws/14-carb_proposed_pi_-_bart_comments_-_09-07-29_.pdf

Original File Name: CARB Proposed PI - BART Comments (09-07-29).pdf

Date and Time Comment Was Submitted: 2009-07-29 14:16:58

If you have any questions or comments please contact Office of the Ombudsman at (916) 327-1266.

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SAN FRANCISCO BAY AREA RAPID TRANSIT DISTRICT
300 Lakeside Drive, P.O. Box 12688
Oakland, CA 94612-3534
(510) 464-6000

July 29, 2009

Kurt Karperos, P.E.
Chief, Air Quality and Transportation Planning
California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, CA 95812

Re: Comments on Discussion Draft Performance Indicators

Dear Mr. Karperos:

Thank you for the opportunity to provide comments on the California Air Resources Board (CARB) Discussion Draft Performance Indicators (July 7, 2009), as prepared for the Regional Targets Advisory Committee (RTAC).

We are submitting the following performance indicators for your consideration. Note that the following suggests that the largest regions identify a "frequent transit network" with relevant transit operators, and track / forecast performance for these indicators. Several of the performance indicators reference the Transit Cooperative Research Program (TCRP) Report 100 - Transit Capacity and Quality of Service Manual, 2nd, 2003 (TCRP 100), http://www.trb.org/news/blurb_detail.asp?id=2326.

1) **Accessibility.** X percent of jobs accessible within 45 minutes by frequent transit network to Y percent of households in region.
2) **Transit Ridership.** Transit ridership and transit passenger miles.
3) **Transit Vehicle Loading Level of Service (capacity).** Number of frequent transit network routes with peak transit vehicle loading that exceeds Level of Service D (TCRP 100, p. 3-45).
4) **Transit Headway Adherence (reliability).** Number of frequent transit network routes that exceed Level of Service C (TCRP 100, p. 3-48).

Your consideration is appreciated. If you have any questions, please contact Val Menotti at 510.287.4794 or by email at vmenott@bart.gov.

Best Regards,

Carter Mau
Executive Manager
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BELOW IS THE COMMENT YOU SELECTED TO DISPLAY.
COMMENT 25 FOR COMMENTS ON THE RTAC (SB375-RTAC-WS) - 1ST WORKSHOP.

First Name: Carolyn
Last Name: Chase
Email Address: cdchase@movesandiego.org
Phone Number: 858-272-347
Affiliation: www.movesandiego.org

Subject: Transit Performance Issues and Reduction of VMT
Comment:

Move San Diego is a California 501(c)3 non-profit corporation with a mission to improve the sustainability of San Diego County's transportation network. MoveSD represents a collaboration of community planners, developers, businesses and environmentalists creating common ground to improve the economic and environmental performance of our regional transportation investments and smart growth policies.

We understand that the San Diego region will be the first region statewide to go through the SB375 Sustainable Communities planning process, including the update of our Regional Transportation Plan (RTP) and Regional Housing Needs Assessment.

INTEGRATION = Making the Land Use & Transportation Connections
Since fossil fuel consumption by transportation is known to be the single largest source of California's GHG emissions, accounting for some 41% of emissions, improvement to planning and running our regional transportation networks is critical. While regions are pursuing "smart growth" by adding additional development and redevelopment, the connections between land use planning and transportation performance are lagging behind.

Specifically, our coalition agrees that transit planning performance is the key strategic, economic and environmental investment that is being the most ignored and would like the RTAC to become much more aware and involved in further quantification and integration of transit as critical - and required - to achieve the wealth of benefits sought by Californians in smart growth and climate change policies.

Transit contributions to VMT and emissions reductions
In a recent regional study of GHG emissions sources and policies conducted by the Energy Policy Initiatives Center at the University of San Diego , the policy strategies
needed to drive transportation-based GHG emissions downward to achieve State goals were ranked. The top two strategies were changes out of the direct control of the region's governments. However, the third top strategy that the region does have some control over is to reduce VMT (Vehicle Miles Traveled). In turn, having studied the issue over time, we believe the biggest change that allows for the largest number of people to reduce their VMT, other than moving where they live or work which is often unachievable by the vast majority of people, is for drivers to be able to change to transit at least for their work commutes. This would also provide the greatest peak period congestion relief benefits. Furthermore, we believe that having more drivers change to transit will actually be required for us to meet State goals pursuant to Assembly Bill 32 (AB 32). Therefore, the issue of what

allows and attracts people to change from driving to transit is strategically critical.

What will allow a region to reduce VMT?
While our region has adopted a myriad of smart growth policies, and has invested billions in transit projects, ridership has not risen enough to significantly impact either VMT or congestion - distinct from recent peaks in gas prices. Why not? Why don't significant numbers of drivers change to transit?

Market research in the San Diego region has shown that drivers can be divided into six basic market groups, 1/6 will never take transit; 1/6 prefer transit. There are four groups "in the middle" representing 2/3 of drivers who would change to transit, but only if it meets their needs. Those needs can be summed up as: sufficient network connectivity; trip times competitive with driving times; reliable/safe/attractive to use. See more info at: http://www.sdearthtimes.com/et0408/et0408s5.html

What is a key barrier to reducing VMT?
We have identified that a key barrier to reducing VMT is lack of a transit network that meets existing drivers' service needs. Transit projects are not currently being designed based on what market research shows drivers need in order to use transit. They are being shaped by a myriad of planning regimes and funding requirements, and not based on the key factors that would attract significant numbers of riders.

We believe that a market-based approach to transit infrastructure and service planning is required to both comply with AB 32's requirement of reducing GHG emissions and achieve smart growth goals - including improving the region's economic competitiveness. Hi-tech and knowledge workers especially hate traffic and are willing to change to transit, but not if it requires significant amounts of additional time. Improving transit performance also has a huge benefit to improving conditions for the poor and disabled.

Objections to policies to reduce VMTs
We have heard some say that improvements in the emissions profiles of cars and trucks will mean we don't have to reduce VMTs. Indeed, the biggest changes out of a region's control are expected to come from manufacturers or through other governmental actions. However, even as emissions profiles of vehicles continue to improve, traffic congestion would still remain as a smart growth challenge and drag on economic performance and quality of life. Better connecting jobs and housing is critical to economic performance. Therefore, a smart, market-based transit system is a requirement to achieve smart growth.

What would such a system look like?
MoveSD searched worldwide for the global best transit planning practices most applicable to our region's land use and transportation growth pattern. We then hired experts to design a transit network based on the market-service principles determined by the market research.

We believe this market-based approach to transportation network planning has important implications for many urban regions, especially those dealing with sprawl, traffic and dispersed regional job centers.

Our findings determined applying this "FAST Planning" approach (Financially Achievable, Saves Time) could provide significant regional benefits including:

- better target and serve major regional job zones and housing areas
- better support transit-oriented development.
- improves the cost-efficiency of transit investments and transit operations.
- is affordable to build and operate
- increases transit use by attracting significantly more riders
- flexible enough to adapt to future conditions
- measurably improves congestion
- a more consistent approach to developing infrastructure designed to be more attractive

Investing in mass transit is also a job engine AND real estate investment, unlike other potential policies to reduce energy use such as telecommuting.

Impediment to Smart Growth and Climate Change reductions
We feel the biggest impediment to achieving reductions in VMT and related smart growth goals is the lack of any state requirement to provide a minimum standard for transit services in order to qualify as "smart growth" or a "sustainable community" approach. We see planners promoting smart growth, but it is not smart when it is not supported by a sufficient transit network to support the increased densities.

Investments in transit that do not meet user market-based service needs or that do not sufficiently improve the network connectivity of regional job centers and housing density, merely result in more congestion and do not offer significant emissions reductions benefits.

Yes, smart growth can offer a wealth of benefits. But it is only as smart as its weakest link. We find, right now, that weakest link, is indeed the design and performance of regional transit networks. Without requiring transit performance improvements, there is a wealth of evidence that we will not achieve the benefits of smart growth; indeed, adding density without having sufficient transit connectivity is exactly what has happened in our region. Additionally, state cuts to transit have reduced transit services to many "Transit Oriented Development" locations. So right now, it becomes a formula for more congestion and more emissions and more parking - the exact opposite of what we need from smart growth.

Note some statistics from our existing RTP:
- 2006 vehicle miles traveled (VMT) is 74.7 million. Under this RTP, VMT would be 113.5. (DEIR at 7-3, table 7.0-1). This is a 38.8 million (34%) increase in VMT.

- The total number of freeway lane miles would increase by over 800 from existing conditions. RTP DEIR at 7-12.

- The transportation improvements under the proposed RTP would increase gasoline consumption by approximately 505 million gallons per year or 31.26 percent relative to existing (2006) conditions.

- Total diesel consumption would increase by 48.7 million gallons or 25.00 percent relative to existing conditions. DEIR at 4.7-23.

- Annual greenhouse gas ("GHG") emissions under the 2007 RTP would exceed existing levels by the substantial margin of about 31 percent or 5.3 million tons of CO2 per year in 2030. DEIR at 4.7-34. The document finds that this increase in GHG emissions would contribute to the exacerbation of climate change and concludes this impact to be significant. Id. at 4.7-34 and 4.7-38.

Therefore, we urge you to make the connection in this most strategic location - the performance of our transit networks as necessary to achieve both climate change reduction and indeed all goals related to smart growth and sustainability.

To view our presentation: Improving transit performance by applying global best practices
http://movesd.org/Downloads/FASTonline%20version%202.4.htm

You may also download a 2-page summary of FAST Planning from our Programs page:
http://movesd.org/programs.html

Thank you for the opportunity to comment.

Attachment:

Original File Name:

Date and Time Comment Was Submitted: 2009-08-04 08:40:56

If you have any questions or comments please contact Office of the Ombudsman at (916) 327-1266.

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